



To Study The Co-Relation Between Alcohol and Liver Abscess

KEYWORDS

liver abscess, alcohol.

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ABSTRACT To study the co-relation between alcohol and liver abscess.

Background: This retrospective study was conducted on 20 patients who underwent malecot catheterisation for liver abscess.

Methods: The present study was undertaken on patients both male and female admitted in surgical ward of MGM Medical college and hospital ,Aurangabad. 20 patients were taken up for the study with liver abscess greater than 50cc. and who underwent malecot catheterisation from OCTOBER 2015 to AUGUST 2016 .

Results: The disease was mostly seen in males (19)(95%) and 1 female in age group of 20-60 yrs with average age being 34. 16 (80%) males found to be chronic alcoholic. Along with alcoholism, poor economic status and malnutrition also plays a vital role as predisposing factor in the formation of liver abscess. Out of the 16 alcoholics ,14 were consuming higher amount of locally prepared alcohol. Only 5 patients had highly elevated liver enzyme level. 4(20%) patients were non alcoholic.

Conclusion: Chronic alcoholism is a strong, potentially modifiable risk factor for liver abscess. Chronic alcoholism especially locally prepared plays a major role as a predisposing factor for formation of liver abscesses.

The liver is the organ most subject to the development of abscess. Liver abscess made up to 13% of the total number of abscess or 48% of all visceral abscesses. Pyogenic liver abscess may be single or multiple. Most single abscess are located in the right lobe. Most abscess of portal vein origin are single where as those of biliary tract origin often multiple. Although in a tropical context pyogenic liver abscess is far less common than invasive amoebiasis, pyogenic abscess is a serious disease with morbidity and mortality even when managed in experienced hand. Immunosuppressive state has increased the number due to opportunistic infection. Portal pyemia may follow pelvic or gastrointestinal infection resulting in portal pyelophlebitis or septic emboli. It can follow appendicitis, empyema of the gall bladder, diverticulitis, regional enteritis, Yersinia ileitis, perforated gastric or colonic ulcer, leaking anastomoses, pancreatitis or infected haemorrhoids.

Diabetic may develop a liver abscess with gas forming organism (Klebsiella).

Commonest infectious agent are gram negative Escherichia coli, Streptococcus faecalis, Klebsiella and Proteus vulgaris.

Materials and methods

It is a prospective study in which total 20 cases of liver abscess were taken from admitted patient in MGM Medical College Hospital from a period of October 2015 august 2016. The inclusion criteria of the cases were clinical finding consistent with liver abscess more than 50cc with confirmation by ultrasonogram of hepatobiliary system and malecot catheterisation of each patient. Aspirated specimen was sent to microbiology department of MGM Medical College, gram stain and culture of aspirates were done. We have defined social class as following parameter, lower class monthly income rs 5000 middle class monthly income rs 5001-10,000, upper class monthly income > rs 10,000 .

A careful comprehensive history and thorough physical examination were done in every patient and recorded in data collection sheet. All patients were subjected to following investigation: Complete blood count, ESR, S. bilirubin, SGPT, Ultrasonogram of Hepatobiliary system, Ultrasono-guided malecot catheterisation of liver abscess and pus sent for microbiological study and culture.

Results

Out of 20 cases of pyogenic liver abscess 19(95%) were male and 1(5%) was female . Mean age was 34± 2 years.

90% (18) patient were from lower and middle class, 10% from upper class. Among them 16 (80%) cases were farmer while 4(20%) cases were shopkeeper . 14(87%) cases consumed alcohol for a duration of 1 year to 10 years. Types of alcohol consumed were, (95%) locally prepared (TARI), of 5% consumed branded alcohol.

Type No. of patients

1. Indigenous alcohol (95%)

2. Brand alcohol (5%)

Symptoms No. of patients

Upper abdominal pain 20(100%)

Fever 18(90%)

Weight loss 8(40%)

Vomiting 13(65%)

Anorexia 10(50%)

Signs No. of patients

Enlarged liver 9 (45%)

Temperature > 100 F 18(90%)

Oedema 2(10%)

Anaemia 7(35%)

Jaundice 3(15%)

Amount of pus No. of patients

< 100 ml 4

100-300 ml 10

300-500 ml 4

> 500 ml 2

Discussion . Low socioeconomic condition, poor sanitary status, inadequate health education, easily available local alcohol are responsible for increased incidence of liver abscess. Sufferers are mostly young male who are from lower and middle class people. Chronic and excessive alcohol ingestion is one of the major causes of liver disease in the western world. Classically alcoholic liver injury comprises three major forms, fatty liver, alcoholic hepatitis and cirrhosis 4. Study on alcohol consumption clarifying hepatic iron load and the risk of amoebic liver abscess mentioned that most amoebic liver abscess cases occur in alcohol drinkers 8. But our study reveals that maximum patients of liver abscess are locally made alcohol drinkers for a period of 1 year to 10 years.

A series of study on analysis of risk factor of pyogenic liver abscess mentioned that biliary tract disease was the most frequently identified cause . The most common microorganism cultured was *Klebsiella pneumoniae*, the most common concomitant disease was diabetes mellitus 6 but our study reveals that alcohol consumption is one of the most important risk factors for pyogenic liver abscess (PLA). On the contrary, an Indian study they have shown that consumption of indigenous alcohol is associated with amoebic liver abscess 11. Locally prepared indigenous alcohol is being prepared possibly in a very unhygienic process, these may be the source of pyogenic organisms of liver abscess. Possible route is portal transmission. *Escherichia coli* and *Klebsiella* has been the organism isolated in our study in just 2 patients while no organism found in other 18 patients. All cases treated with ultrasonography guided malecot catheterisation and intravenous antibiotic, mostly third generation cephalosporin and metronidazole.

Conclusion

This study highlights the strong association of locally prepared indigenous alcohol with pyogenic liver abscess. It is more common in the lower and middle class people of the society.

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